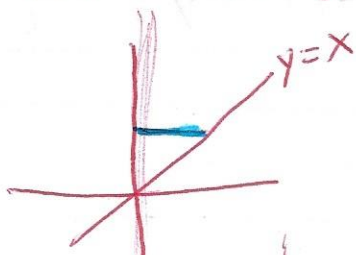


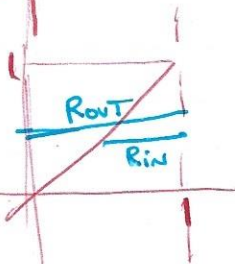
426 #43-50, 54, 73, 74, 75a

43)



$$\pi \int_0^1 (y)^2 dy = \frac{\pi}{3}$$

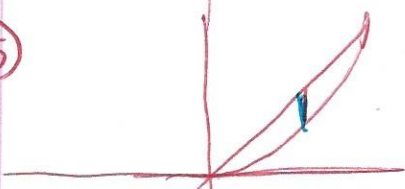
44)



~~$\pi \int_0^1 (1-y)^2 dy = \frac{2\pi}{3}$~~

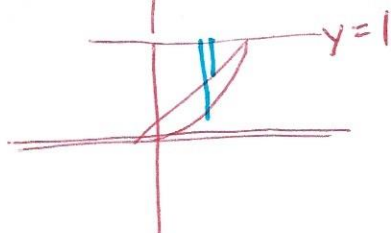
$$\pi \int_0^1 (1-y^2)^2 dy$$

45)



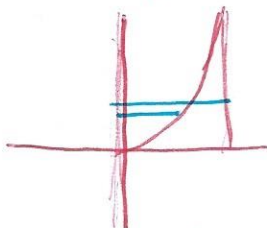
$$\pi \int_0^1 (x)^2 - (x^2)^2 dx = \frac{2\pi}{15}$$

46)



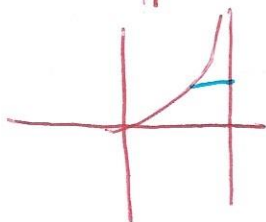
$$\pi \int_0^1 (1-x^2)^2 - (1-x)^2 dx = \frac{\pi}{5}$$

47)



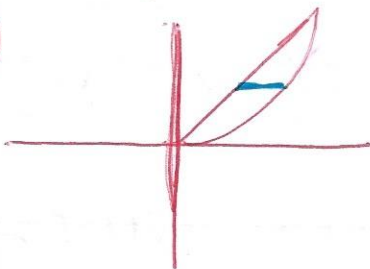
$$\pi \int_0^1 1^2 - (\sqrt{y})^2 dy = \frac{\pi}{2}$$

48)



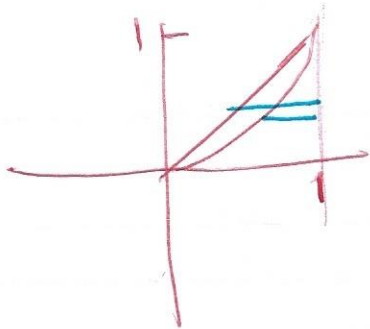
$$\pi \int_0^1 (1-\sqrt{y})^2 dy = \frac{\pi}{6}$$

49)



$$\pi \int_0^1 (\sqrt{y})^2 - (y)^2 dy = \frac{\pi}{6}$$

50)



$$\pi \int_0^1 (1-x)^2 - (1-\sqrt{x})^2 dx = \frac{\pi}{6}$$

54)

a) ii

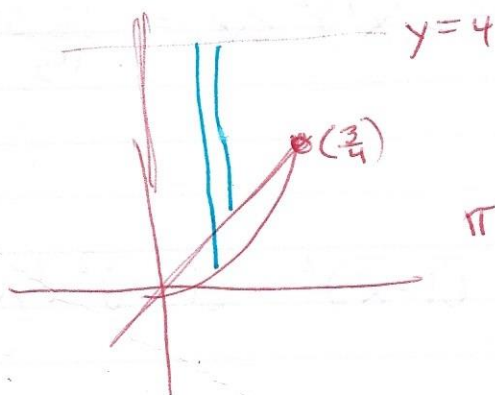
b) iv

c) i

d) iii

73)

C

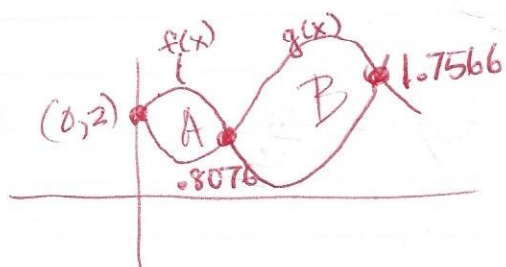


74)

B

$$\pi \int_0^{3/4} (4-4x^2)^2 - (4-3x)^2 dx$$

75a)



$$A = \pi \int_0^{0.8076} (x^4 - 4x^2 + 2x + 2)^2 - (2 - \sin(\pi x))^2 dx = 0.5988$$

$$B = \pi \int_{0.8076}^{1.7566} (2 - \sin(\pi x))^2 - (x^4 - 4x^2 + 2x + 2)^2 dx = 1.3066$$

$$A + B = 0.5988 + 1.3066 = 1.9054$$